

CLAIMS

What is claimed is:

1. A method of moving a file service within a plurality of storage filers coupled to a communication network and a storage network, the method comprising:
 - generating file service data for the file service in a first storage filer;
 - associating the file service with an identification;
 - allocating the file service data to at least one memory page in the first storage filer based on the identification;
 - determining an indication to transfer the file service from the first storage filer;
 - and
 - transferring the at least one memory page using the identification from the first storage filer to a second storage filer.
2. The method of claim 1 further comprising identifying the second storage filer.
3. The method of claim 2 wherein identifying the second storage filer comprises determining whether the second storage filer has adequate memory for the at least one memory page.
4. The method of claim 1 further comprising transmitting a message to clients for the file service connected to the communication network to communicate with the second storage filer.

5. The method of claim 1 further comprising suspending file operations of the file service.
6. The method of claim 1 further comprising reducing unused space in the at least one memory page.
7. The method of claim 1 further comprising fixing pointers related to the at least one memory page.
8. The method of claim 1 wherein determining the indication is based on a policy to transfer the file service from the first storage filer.
9. The method of claim 1 wherein determining the indication further comprises receiving an instruction to transfer the file service from the first storage filer.
10. A system for storage filing, the system comprising:
 - a first storage filer coupled to a communication network and a storage network and configured to generate file service data for a file service, associate the file service with an identification, allocate the file service data to at least one memory page in the first storage filer based on the identification, determine an indication to transfer the file service from the first storage filer, and transfer the at least one memory page using the identification from the first storage filer; and
 - a second storage filer configured to receive the at least one memory page.

11. The system of claim 10 wherein the first storage filer is configured to identify the second storage filer.

12. The system of claim 11 wherein the first storage filer is configured to identify the second storage filer by determining whether the second storage filer has adequate memory for the at least one memory page.

13. The system of claim 10 wherein the first storage filer is configured to transmit a message to clients for the file service connected to the communication network to communicate with the second storage filer.

14. The system of claim 10 wherein the first storage filer is configured to suspend file operations of the file service.

15. The system of claim 10 wherein the first storage filer is configured to reduce unused space in the at least one memory page.

16. The system of claim 10 wherein the second storage filer is configured to fix pointers related to the at least one memory page.

17. The system of claim 10 wherein the first storage filer is configured to determine the indication is based on a policy to transfer the file service from the first storage filer.

18. The system of claim 10 wherein the first storage filer is configured to receive an instruction to transfer the file service from the first storage filer.

19. A system for storage filing coupled to a communication network and a storage network, the system comprising:

- means for generating file service data for a file service in a first storage filer;

- means for associating the file service with an identification;

- means for allocating the file service data to at least one memory page in the first storage filer based on the identification;

- means for determining an indication to transfer the file service from the first storage filer; and

- means for transferring the at least one memory page using the identification from the first storage filer to a second storage filer.

20. A method of moving a file service in a first storage filer located between a communication network and a storage network, the method comprising:

- determining an indication to transfer a file service from the first storage filer;

- identifying an available storage filer to receive the file service; and

- transmitting at least one memory page with file service data of the file service from the first storage filer to the available storage filer using an identification for the file service.

21. The method of claim 20 further comprising:

generating the file service data for a file service in a first storage filer; and
associating the file service with the identification.

22. The method of claim 20 further comprising allocating the file service data to the at least one memory page in the first storage filer based on the identification.

23. The method of claim 20 wherein identifying the available storage filer comprises determining whether the available storage filer has adequate memory for the at least one memory page.

24. The method of claim 20 further comprising transmitting a message to clients for the file service connected to the communication network to communicate using an address of the available storage filer.

25. The method of claim 20 further comprising suspending file operations of the file service.

26. The method of claim 20 further comprising reducing unused space in the at least one memory page.

27. The method of claim 20 further comprising fixing pointers related to the at least one memory page.

28. The method of claim 20 wherein the file service comprises a Common Internet File System session/service.

29. The method of claim 20 wherein the file service comprises a Network File System session/service.

30. A first storage filer located between a communication network and a storage network, the first storage filer comprising:

- a processor configured to determine an indication to transfer a file service from the first storage filer and identify an available storage filer to receive the file service;
- an interface configured to transmit at least one memory page with file service data of the file service from the first storage filer to the available storage filer using an identification for the file service; and
- a memory configured to store the at least one memory page.

31. The first storage filer of claim 30 wherein the processor is configured to generate file service data for a file service in a first storage filer and associate the file service with the identification.

32. The first storage filer of claim 30 wherein the processor is configured to allocate the file service data to the at least one memory page in the first storage filer based on the identification.

33. The first storage filer of claim 30 wherein the processor is configured to determine whether the available storage filer has adequate memory for the at least one memory page.

34. The first storage filer of claim 30 wherein the processor is configured to transmit a message to clients for the file service connected to the communication network to communicate using an address of the available storage filer.

35. The first storage filer of claim 30 wherein the processor is configured to suspend file operations of the file service.

36. The first storage filer of claim 30 wherein the processor is configured to reduce unused space in the at least one memory page.

37. The first storage filer of claim 30 wherein the file service comprises a Common Internet File System session/service.

38. The first storage filer of claim 30 wherein the file service comprises a Network File System session/service.

39. A first storage filer located between a communication network and a storage network,
the first storage filer comprising:

- means to determine an indication to transfer a file service from the first storage
filer;

- means to identify an available storage filer to receive the file service; and

- means to transmit at least one memory page with file service data of the file
service from the first storage filer to the available storage filer using an identification for
the file service.